

PTO/SB/08A (08-03)

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **1** of **11****Complete if Known**

Application Number	10/715,729
Filing Date	November 17, 2003
First Named Inventor	Sommadossi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
LH	AA	3,798,209	A	Witkowski, <i>et al.</i>	03-19-1974	
	AB	RE29,835		Witkowski <i>et al.</i>	11-14-1978	
	AC	4,522,811	A	Eppstein <i>et al.</i>	06-11-1985	
	AD	4,957,924	A	Beauchamp	09-18-1990	
	AE	5,149,794	A	Yatvin <i>et al.</i>	09-22-1992	
	AF	5,157,027	A	Biller <i>et al.</i>	10-20-1992	
	AG	5,194,654	A	Hostetler <i>et al.</i>	03-16-1993	
	AH	5,223,263	A	Hostetler <i>et al.</i>	06-29-1993	
	AI	5,256,641	A	Yatvin <i>et al.</i>	10-26-1993	
	AJ	5,372,808	A	Blatt <i>et al.</i>	12-13-1994	
	AK	5,411,947	A	Hostetler <i>et al.</i>	05-02-1995	
	AL	5,463,092	A	Hostetler <i>et al.</i>	10-31-1995	
	AM	5,543,389	A	Yatvin <i>et al.</i>	08-06-1996	
	AN	5,543,390	A	Yatvin <i>et al.</i>	08-06-1996	
	AO	5,543,391	A	Yatvin <i>et al.</i>	08-06-1996	
	AP	5,554,728	A	Basava <i>et al.</i>	09-10-1996	
	AQ	5,676,942	A	Testa <i>et al.</i>	10-14-1997	
	AR	5,738,845	A	Imakawa	04-14-1998	
	AS	5,830,455	A	Valtuna <i>et al.</i>	11-03-1998	
	AT	5,849,696	A	Chretien <i>et al.</i>	12-15-1998	
	AU	5,908,621	A	Glue <i>et al.</i>	06-01-1999	
	AV	5,928,636	A	Alber <i>et al.</i>	07-27-1999	
	AW	5,942,223	A	Bazer <i>et al.</i>	08-24-1999	
	AX	5,977,061	A	Holy <i>et al.</i>	11-02-1999	
	AY	5,980,884	A	Blatt <i>et al.</i>	11-09-1999	
	AZ	6,312,662		Erion <i>et al.</i>	11-06-2001	
	AAA	6,340,690	B1	Bachand <i>et al.</i>	01-22-2002	
	AAB	6,395,716	B1	Gosselin <i>et al.</i> (Novirio / Idenix)	05-28-2002	
	AAC	6,444,652	B1	Gosselin <i>et al.</i> (Novirio / Idenix)	09-03-2002	
	AAD	2002/0147160	A1	Bhat <i>et al.</i>	10-10-2002	
	AAE	2003/0008841	A1	Devos <i>et al.</i>	01-09-2003	
	AAF	2003/0028013	A1	Wang <i>et al.</i>	02-06-2003	

Examiner  
Signature

/Louise Humphrey/ (09/19/2006)

Date  
Considered

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Sheet	2	of	11		

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		Number	Kind Code <sup>2</sup> (if known)			
LH	BA	2003/0050229	A1	Sommadossi <i>et al.</i>	03-13-2003	
LH	BB	2003/0060400	A1	LaColla <i>et al.</i>	03-27-2003	
LH	BC	2003/0083307	A1	Devos <i>et al.</i>	05-01-2003	


FOREIGN PATENT DOCUMENTS								
Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number	Kind Code <sup>2</sup> (if known)				
LH	BD	DE	3,512,781	A1	Soc. Nat. Elf Aquitaine	10-17-1985		
	BE	EP	0,180,276	B1	Stamcarbon B.V.	12-28-1988		
	BF	EP	0,350,287	B1	Chimerix, Inc.	09-27-2000		
	BG	EP	0,650,371	B1	State of Oregon	11-15-2000		
	BH	FR	1,521,076	A	Merck & Co. Inc.	04-12-1968		
	BI	FR	2,662,165	A	Univ. Paris Curie	11-22-1991		
	BJ	GB	1,163,103	A	Merck & Co. Inc.	09-04-1969		
	BK	GB	1,209,654	A	Merck & Co. Inc.	10-21-1970		
	BL	WO	89/02733	A1	Univ. of California	04-06-1989		
	BM	WO	90/00555	A1	Vical Inc.	01-25-1990		
	BN	WO	91/16920	A1	Vical Inc.	11-14-1991		
	BO	WO	91/18914	A1	Vical Inc.	12-12-1991		
	BP	WO	91/19721	A1	Glazier	12-26-1991		
	BQ	WO	93/00910	A1	Vical Inc.	01-21-1993		
	BR	WO	94/26273	A1	Hostetler	11-24-1994		
	BS	WO	96/15132	A1	Univ. of California	05-23-1996		
	BT	WO	99/15194	A1	Schering Corporation	04-01-1999		
	BU	WO	99/43691	A1	Emory U.; U.Ga.R.F.	02-09-1999		
	BV	WO	99/45016	A2	Metabasis Therapeutics.	09-10-1999		
	BW	WO	99/59621	A1	Schering Corporation	11-25-1999		
	BX	WO	99/64016	A1	Hoffman-La Roche AG	12-16-1999		
	BY	WO	00/09531	A2	Novirio (Idenix); CNRS	02-24-2000		
	BZ	WO	00/24355	A1	Smith & Nephew Kinetic	05-04-2000		
	BAA	WO	00/37110	A2&3	Schering Corporation	06-29-2000		
	BAB	WO	00/52015	A2	Metabasis Therapeutics	09-08-2000		

Examiner Signature	/Louise Humphrey/ (09/19/2006)	Date Considered	
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				Filing Date	November 17, 2003
				First Named Inventor	Sommadossi <i>et al.</i>
				Group Art Unit	Unassigned
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Sheet	3	of	11	Attorney Docket Number	06171.105062 IDX 1023

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
FOREIGN PATENT DOCUMENTS								
Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number	Kind Code <sup>2</sup> (if known)				
LH	CA	WO	01/18013	A1	Metabasis Therapeutics	03-15-2001		
	CB	WO	01/32153	A2	Biochem Pharma	05-10-2001		
	CC	WO	01/47935	A2&3	Metabasis Therapeutics	07-05-2001		
	CD	WO	01/60315	A2	Biochem Pharma	08-23-2001		
	CE	WO	01/79246	A2	Pharmasset	10-25-2001		
	CF	WO	01/81359	A1	Schering Corporation	11-01-2001		
	CG	WO	01/90121	A2	Novirio Pharm. (Idenix)	11-29-2001		
	CH	WO	01/91737	A2	Novirio Pharm. (Idenix)	12-06-2001		
	CI	WO	01/92282	A2	Novirio Pharm. (Idenix)	12-06-2001		
	CJ	WO	01/96353	A2	Novirio Pharm. (Idenix)	12-20-2001		
	CK	WO	02/18404	A2	F. Hoffmann-La Roche	03-07-2002		
	CL	WO	02/32414	A2&3	Schering Corporation	04-25-2002		
	CM	WO	02/32920	A2	Pharmasset Limited	04-25-2002		
	CN	WO	02/48165	A2	Pharmasset Limited	06-20-2002		
	CO	WO	02/057287	A2	Merck & Co. Inc.	07-25-2002		
	CP	WO	02/057425	A2	Merck & Co. Inc.	07-25-2002		
	CQ	WO	02/070533	A2	Pharmasset Limited	09-12-2002		
	CR	WO	02/094289	A1	F. Hoffmann-La Roche	11-28-2002		
	CS	WO	02/100415	A2	F. Hoffmann-La Roche	12-19-2002		
	CT	WO	03/024461	A1	Schering Corporation	03-27-2003		
	CU	WO	03/026589	A2	Idenix; CNRS; U. Montp.	04-03-2003		
	CV	WO	03/026675	A1	Idenix; CNRS; U. Montp.	04-03-2003		
	CW	WO	03/061385	A1	Ribapharm	07-31-2003		
	CX	WO	03/062255	A2	Ribapharm	07-31-2003		
	CY	WO	04/002422	A2	Idenix; Univ.D.S.Cagliari	01-08-2004		
	CZ	WO	04/002999	A2	Idenix; Univ.D.S.Cagliari	01-08-2004		
	CAA	WO	04/003138	A2	Merck; Isis	01-08-2004		
	CAB	WO	04/009020	A2	Merck; Isis	01-29-2004		

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Sheet	4	of	11	Attorney Docket Number	06171.105062 IDX 1023

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>	
LH	DA	ALT, M., <i>et al.</i> , "Core specific antisense phosphorothioate oligodeoxynucleotides as potent and specific inhibitors of hepatitis C viral translation," <i>Archives of Virology</i> , 142:589-599 (1997).		
	DB	ALT, M., <i>et al.</i> , "Specific inhibition of hepatitis C viral gene expression by antisense phosphorothioate oligodeoxynucleotides," <i>Hepatology</i> , 22:707-717 (1995).		
	DC	ALTMANN <i>et al.</i> , "The synthesis of 1'-methyl carbocyclic thymidine and its effect on nucleic acid duplex stability," <i>Synlett, Thieme Verlag, Stuttgart, De</i> , 10:853-855 (1994).		
	DD	BAGINSKI, S. G. <i>et al.</i> , "Mechanism of action of a pestivirus antiviral compound," <i>PNAS USA</i> , 97(14):7981-7986 (2000).		
	DE	BATTAGLIA, A.M. <i>et al.</i> , "Combination Therapy with Interferon and Ribavirin in the Treatment of Chronic Hepatitis C Infection", <i>Ann. Pharmacother</i> , 34:487-494 (2000).		
	DF	BEIGELMAN, L.N., <i>et al.</i> , "Epimerization during the acetolysis of 3-O-acetyl-5-O-benzoyl-1,2-O-isopropylidene-3-C-methyl- $\alpha$ ,D-ribofuranose. Synthesis of 3'-C-methylnucleosides with the $\beta$ -D-ribo- and $\alpha$ -D-arabino configurations," <i>Carbohydrate Research</i> , 181:77-88 (1988).		
	DG	BEIGELMAN, L.N., <i>et al.</i> , "A general method for synthesis of 3'-C-alkylnucleosides," <i>Nucleic Acids Symp. Ser.</i> , 9:115-118 (1981).		
	DH	BERENGUER, M., <i>et al.</i> , "Hepatitis B and C viruses: Molecular identification and targeted antiviral therapies," <i>Proceedings of the Association of American Physicians</i> , 110(2), 98-112 (1998).		
	DI	BERENGUER, M. <i>et al.</i> , "Hepatitis C virus in the transplant setting", <i>Antivir. Ther.</i> , 3 (Suppl 3):125-136 (1998).		
	DJ	BERMAN, E, <i>et al.</i> , "Synergistic cytotoxic effect of azidothymidine and recombinant interferon alpha on normal human bone marrow progenitor cells," <i>Blood</i> , 74(4):1281-1286 (1989)		
	DK	BHAT <i>et al.</i> (Oral Session V, Hepatitis C Virus, Flaviviridae, 2003 (Oral Session V, Hepatitis C Virus, Flaviviridae; 16 <sup>th</sup> International Conference on Antiviral Research (April 27, 2003, Savannah, Ga.); p A75).		
	DL	BROWNE, M.J., <i>et al.</i> , "2',3'-didehydro-3'-deoxythymidine (d4T) in patients with AIDS or AIDS-Related Complex: A Phase I trial," <i>J. Infect. Dis.</i> , 167(1):21-29 (1993).		
	DM	COLACINO, J. M., "Review article: Mechanisms for the anti-hepatitis B virus activity and mitochondrial toxicity of fialuridine (FIAU)," <i>Antiviral Res.</i> , 29(2-3): 125-39 (1996).		
	DN	CUI, L., <i>et al.</i> , "Cellular and molecular events leading to mitochondrial toxicity of 1-(2-deoxy-2-fluoro-1- $\beta$ -D-arabinofuranosyl)-5-iodouracil in human liver cells," <i>J. Clin. Invest.</i> , 95:555-563 (1995).		
✓	DO	CZERNECKI, S., <i>et al.</i> , "Synthesis of various 3'-branched 2',3'-unsaturated pyrimidine nucleosides as potential anti-HIV agents," <i>J. Org. Chem.</i> , 57:7325-7328 (1992).		

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LH	EA	DAVIS, G.L., "Current therapy for chronic Hepatitis C," <i>Gastroenterology</i> 118:S104-S114 (2000).			
	EB	De FRANCESCO, R., <i>et al.</i> , "Approaching a new era for hepatitis C virus therapy: Inhibitors of the NS3-4A serine protease and the NS5B RNA-dependent RNA polymerase," <i>Antiviral Research</i> , 58:1-16 (2003).			
	EC	De LOMBAERT, S., <i>et al.</i> , "N-Phosphonomethyl dipeptides and their phosphonate prodrugs, a new generation of neutral endopeptidase (NEP, EC 3.4.24.11) inhibitors," <i>J. Med. Chem.</i> , 37:498-511 (1994).			
	ED	DORNSIFE, R. E. <i>et al.</i> , "In Vitro Potency of Inhibition by Antiviral Drugs of Hematopoietic Progenitor Colony Formation Correlates with Exposure at Hemotoxic Levels in Human Immunodeficiency Virus-Positive Humans" <i>Antimicrob. Agents Chemother.</i> 40(2):514-519 (1996)			
	EE	DYMCK, B.W., <i>et al.</i> , "Review: Novel approaches to the treatment of hepatitis C virus infection," <i>Antiviral Chemistry &amp; Chemotherapy</i> , 11(2):79-96 (2000).			
	EF	ELDRUP <i>et al.</i> (Oral Session V, Hepatitis C Virus, Flaviviridae; 16 <sup>th</sup> International Conference on Antiviral Research (April 27, 2003, Savannah, Ga.).			
	EG	FAIVRE-BUET, V., <i>et al.</i> , "Synthesis of 1'-deoxypsycofuranosyl-deoxynucleosides as potential anti-HIV agents," <i>Nucleosides &amp; Nucleotides</i> , 11(7):1411-1424 (1992).			
	EH	FARKAS, J., <i>et al.</i> , "Nucleic acid components and their analogues. XCIV. Synthesis of 6-amino-9-(1-deoxy-β-D-psicofuranosyl)purine", <i>Collect. Czech. Chem. Commun.</i> 32:2663-2667 (1967).			
	EI	FARKAS, J., <i>et al.</i> , "Nucleic acid components and their analogues. LXXIX. Synthesis of methyl 1-deoxy-D-psicofuranosides substituted at C <sub>(1)</sub> with halo atoms or a mercapto group," <i>Collect. Czech. Chem. Commun.</i> , 31:1535-1543 (1996).			
	EJ	FARQUHAR, D., <i>et al.</i> , "Synthesis and biological evaluation of neutral derivatives of 3-fluoro-2'-deoxyuridine 5'-phosphate," <i>J. Med. Chem.</i> , 26: 1153-1158 (1983).			
	EK	FARQUHAR, D., <i>et al.</i> , "Synthesis and biological evaluation of 9-[5'-(2-oxo-1,3,2-oxazaphosphorinan-2-yl)-β-D-arabinosyl]adenine and 9-[5'-(2-oxo-1,3,2-dioxazaphosphorinan-2-yl)-β-D-arabinosyl]adenine: Potential neutral precursors of 9-[β-D-arabinofuranosyl]adenine 5'-monophosphate," <i>J. Med. Chem.</i> , 28:1358-1361 (1985).			
	EL	FEDOROV, I.I., <i>et al.</i> , "3'-C-Branched 2'-deoxy-5-methyluridines: Synthesis, enzyme inhibition, and antiviral properties," <i>J. Med. Chem.</i> , 35(24):4567-4575 (1992).			
✓	EM	FERRARI R., <i>et al.</i> , "Characterization of soluble hepatitis C virus RNA-dependent RNA polymerase expressed in <i>Escherichia coli</i> ," <i>Journal of Virology</i> , 73(2), 1649-1654 (1999).			

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			Filing Date	November 17, 2003	
			First Named Inventor	Sommadossi <i>et al.</i>	
			Group Art Unit	Unassigned	
			Examiner Name	Unassigned	
Sheet	6	of	11	Attorney Docket Number	06171.105062 IDX 1023

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LH	FA	FISCHL, M.A., <i>et al.</i> , "Zalcitabine compared with zidovudine in patients with advanced HIV-1 infection who received previous zidovudine therapy," <i>Ann. Intern. Med.</i> , 18(10):762-769 (1993).		
	FB	FRANCHETTI, P., <i>et al.</i> , "2'-C-Methyl analogues of selective adenosine receptor agonists: synthesis and binding studies," <i>J. Med. Chem.</i> , 41(10):1708-1715 (1998).		
	FC	FREED, J.J., <i>et al.</i> , "Evidence for acyloxymethyl esters of pyrimidine 5'-deoxyribonucleotides as extracellular sources of active 5'-deoxyribonucleotides in cultured cells," <i>Biochemical Pharmacology</i> , 38:3193-3198 (1989).		
	FD	GALDERISI, U., <i>et al.</i> , "Antisense oligonucleotides as therapeutic agents," <i>Journal of Cellular Physiology</i> , 181(2):251-257 (November 1999).		
	FE	GROUILLER, A., <i>et al.</i> , "Novel <i>p</i> -toluenesulfonylation and thionocarbonylation of unprotected thymine nucleosides," <i>Synlett</i> , 1993, 221-222 (March 1993).		
	FF	GUNIC, E., <i>et al.</i> , "Synthesis and cytotoxicity of 4'-C- and 5'-C-substituted Toyocamycins," <i>Bioorg. Med. Chem.</i> , 9:163-170 (2001).		
	FG	HARAGUCHI, K., <i>et al.</i> , "Preparation and reactions of 2'- and 3'- vinyl bromides of uracil nucleosides: Versatile synthons for anti-HIV agents," <i>Tetrahedron Letters</i> , 32(28):3391-3394 (1991).		
	FH	HARAGUCHI, K., <i>et al.</i> , "Stereoselective synthesis of 1'-C-branched uracil nucleosides from uridine," <i>Nucleosides &amp; Nucleotides</i> , 14(3-5):417-420 (1995).		
	FI	HARRY-O'KURU, R.E., <i>et al.</i> , "A short, flexible route toward 2'-C-branched ribonucleosides," <i>J. Org. Chem.</i> , 62:1754-1759 (1997). (Scheme 11).		
	FJ	HARRY-O'KURU, R.E., <i>et al.</i> , "2'-C-Alkylribonucleosides: Design, synthesis, and conformation," <i>Nucleosides &amp; Nucleotides</i> , 16(7-9):1457-1460 (1997).		
	FK	HATTORI, H., <i>et al.</i> , "Nucleosides and nucleotides. 175. Structural requirements of the sugar moiety for the antitumor activities of new nucleoside antimetabolites, 1-(3-C-ethynyl-b-D-ribo-pentofuranosyl)cytosine and -uracil," <i>J. Med. Chem.</i> , 41:2892-2902 (1998).		
	FL	HOSTETLER, K.Y., <i>et al.</i> , "Synthesis and antiretroviral activity of phospholipids analogs of azidothymidine and other antiviral nucleosides," <i>J. Biol. Chem.</i> , 265:6112-6115 (1990)		
	FM	HOSTETLER, K.Y., <i>et al.</i> , "Greatly enhanced inhibition of Human Immunodeficiency Virus Type I replication in CEM and HT4-6C cells by 3'-deoxythymidine diphosphate dimyristoylglycerol, a lipid prodrug of 3'-deoxythymidine," <i>Antimicrob. Agents Chemother.</i> , 36:2025-2029 (September 1992).		
✓	FN	HUNSTON, R.N., <i>et al.</i> , "Synthesis and biological properties of some cyclic phosphotriesters derived from 2'-deoxy-5-fluorouridine," <i>J. Med. Chem.</i> 27:440-444 (1984).		

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LH	GA	HREBABECKY, H., <i>et al.</i> , "Nucleic acid components and their analogues. CXLIX. Synthesis of pyrimidine nucleosides derived from 1-deoxy-D-psicose," <i>Collect. Czech. Chem. Commun.</i> , 37:2059-2065 (1972).		
	GB	HREBABECKY, H., <i>et al.</i> "Synthesis of 7- and 9β-D-psicofuranosylguanine and their 1'-deoxy derivatives," <i>Collect. Czech. Chem. Commun.</i> , 39:2115-2123 (1974).		
	GC	IINO, T., <i>et al.</i> , "Nucleosides and nucleotides. 139. Stereoselective synthesis of (2'S)-2'-C-alkyl-2'-deoxyuridines," <i>Nucleosides and Nucleotides</i> , 15(1-3):169-181 (1996).		
	GD	ITOH, Y., <i>et al.</i> , "Divergent and stereocontrolled approach to the synthesis of uracil nucleosides branched at the anomeric position," <i>J. Org. Chem.</i> , 60(3):656-662 (1995).		
	GE	JOHNSON, C.R., <i>et al.</i> , "3'-C-Trifluoromethyl ribonucleosides," <i>Nucleosides &amp; Nucleotides</i> , 14(1&2):185-194 (1995).		
	GF	JONES, G. H.; Moffatt, J. G., <i>Methods in Carbohydrate Chemistry</i> ; Whisler, R. L. and Moffatt, J. L. Eds; Academic Press: New York, 1972; 315-322		
	GG	JONES, G. H., <i>et al.</i> , "4'-substituted nucleosides. 5. Hydroxymethylation of nucleoside 5'-aldehydes," <i>J. Org. Chem.</i> , 44:1309-1317 (1979).		
	GH	KAWANA, M., <i>et al.</i> , "The deoxygenation of tosylated adenosine derivatives with Grignard reagents," <i>Nucleic Acids Symp. Ser.</i> , 17:37-40 (1986).		
	GI	KHAMNEI, S., "Neighboring group catalysis in the design of nucleotide prodrugs," <i>J. Med. Chem.</i> , 39:4109-4115 (1996).		
	GJ	KUCERA, L.S., <i>et al.</i> , "Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation," <i>AIDS Res. Hum. Retro Viruses</i> , 6:491-501 (1990).		
	GK	KURTZBERG J., <i>et al.</i> , "Differential toxicity of carbovir and AZT to human bone marrow hematopoietic progenitor cells in vitro," <i>Exp. Hematol.</i> , 18(10):1094-1096 (1990).		
	GL	LAI, V.C.H., <i>et al.</i> , "Mutational analysis of bovine viral diarrhea virus RNA-dependent RNA polymerase," <i>J. Virol.</i> , 73(12):10129-10136 (December 1999).		
	GM	LAVAIRE, S., <i>et al.</i> , "3'-Deoxy-3'-C-trifluoromethyl nucleosides: Synthesis and antiviral evaluation," <i>Nucleosides &amp; Nucleotides</i> , 17(12):2267-2280 (1998).		
	GN	LEONARD, N. J., <i>et al.</i> , "5-Amino-5-deoxyribose derivatives. Synthesis and use in the preparation of "reversed" nucleosides" <i>J. Heterocycl. Chem.</i> , 3:485-489 (December 1966).		
✓	GO	LERZA, R., <i>et al.</i> , "In vitro synergistic inhibition of human bone marrow hematopoietic progenitor growth by a 3'-azido-3'-deoxy-thymidine, 2',3'-dideoxycytidine combination," <i>Exp. Hematol.</i> , 25(3):252-255 (1997).		

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Sheet	8	of	11	Attorney Docket Number	06171.105062 IDX 1023

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LH	HA	LEWIS W, <i>et al.</i> , "Zidovudine induces molecular, biochemical, and ultrastructural changes in rat skeletal muscle mitochondria," <i>J. Clin. Invest.</i> , 89(4):1354-1360 (1992).			
	HB	LEWIS, L. D., <i>et al.</i> , "Ultrastructural changes associated with reduced mitochondrial DNA and impaired mitochondrial function in the presence of 2'3'-dideoxycytidine," <i>Antimicrob. Agents Chemother.</i> , 36(9):2061-2065 (1992).			
	HC	LEWIS, W., <i>et al.</i> , "Fialuridine and its metabolites inhibit DNA polymerase $\gamma$ at sites of multiple adjacent analog incorporation, decrease mtDNA abundance, and cause mitochondrial structural defects in cultured hepatoblasts," <i>Proceedings of the National Academy of Sciences, USA</i> , 93(8): 3592-7 (1996).			
	HD	LEYSEN, P. <i>et al.</i> , "Perspectives for the treatment of infections with <i>Flaviviridae</i> ," <i>Clinical Microbiology Reviews</i> (Washington, D.C.), 13(1):67-82 (January 2000).			
	HE	LOHMANN V., <i>et al.</i> , "Biochemical and kinetic analyses of NS5B RNA-dependent RNA polymerase of the Hepatitis C virus," <i>Virology</i> , 249, 108-118 (1998).			
	HF	LOHMANN, V., <i>et al.</i> , "Replication of subgenomic hepatitis C virus RNAs in a hepatoma cell line," <i>Science</i> , 285(5424):110-113 (July 2, 1999).			
	HG	LUH, T.-Y., <i>et al.</i> , "A convenient method for the selective esterification of amino-alcohols," <i>Synthetic Communications</i> , 8(5):327-333 (1978).			
	HH	MARTIN, J.A., <i>et al.</i> , "Synthesis and antiviral activity of monofluoro and difluoro analogues of pyrimidine deoxyribonucleosides against human immunodeficiency virus (HIV-1)," <i>J. Med. Chem.</i> , 33(8):2137-2145 (1990).			
	HI	MARTIN, X., <i>et al.</i> , "Intramolecular hydrogen bonding in primary hydroxyl of thymine 1-(1-deoxy- $\beta$ -D-psicofuranosyl) nucleoside," <i>Tetrahedron</i> , 50(22):6689-6694 (1994).			
	HJ	MATSUDA, A., <i>et al.</i> , "Radical deoxygenation of <i>tert</i> -alcohols in 2'-branched-chain sugar pyrimidine nucleosides: Synthesis and antileukemic activity of 2'-deoxy-2'-(S)-methylcytidine," <i>Chem. Pharm. Bull.</i> , 35(9):3967-3970 (1987).			
	HK	MATSUDA, A., <i>et al.</i> , "Alkyl addition reaction of pyrimidine 2'-ketonucleosides: Synthesis of 2'-branched-chain sugar pyrimidine nucleosides (Nucleosides and Nucleotides. LXXXI)," <i>Chem. Pharm. Bull.</i> , 36(3):945-953 (1988).			
	HL	MATSUDA, A., <i>et al.</i> , "Nucleosides and Nucleotides. 94. Radical deoxygenation of <i>tert</i> -alcohols in 1-(2-C-alkylpentofuranosyl)pyrimidines: Synthesis of (2'S)-2'-deoxy-2'-C-methylcytidine, an antileukemic nucleoside," <i>J. Med. Chem.</i> , 34:234-239 (1991).			
✓	HM	MATSUDA, A., <i>et al.</i> , "Nucleosides and Nucleotides. 104. Radical and palladium-catalyzed deoxygenation of the allylic alcohol systems in the sugar moiety of pyrimidine nucleosides," <i>Nucleosides &amp; Nucleotides</i> , 11(2/4):197-226 (1992).			

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LH	IA	McCORMICK, J., <i>et al.</i> , "Structure and total synthesis of HF-7, a neuroactive glyconucleoside disulfate from the funnel-web spider <i>Hololena curta</i> ," <i>J. Am. Chem. Soc.</i> , 121(24), 5661-5665 (1999).		
	IB	MCKENZIE, R., <i>et al.</i> , "Hepatic failure and lactic acidosis due to fialuridine (FIAU), an investigational nucleoside analogue for chronic hepatitis B," <i>N. Engl. J. Med.</i> , 333(17):1099-1105 (1995).		
	IC	MEDINA, D. J., <i>et al.</i> , "Comparison of mitochondrial morphology, mitochondrial DNA content, and cell viability in cultured cells treated with three anti-Human Immunodeficiency Virus dideoxynucleosides," <i>Antimicrob. Agents Chemother.</i> , 38(8):1824-8 (1994).		
	ID	MEIER, C., <i>et al.</i> , "Cyclic saligenyl phosphotriesters of 2',3'-dideoxy-2',3'-didehydrothymidine (d4T) – A new pro-nucleic approach," <i>Bioorganic &amp; Med. Chem. Letters</i> 7(2):99-104 (1997).		
	IE	MEYER, R.B., Jr., <i>et al.</i> , "2'-O-Acyl-6-thioinosine cyclic 3',5'-phosphates as prodrugs of thioinosinic acid," <i>J. Med. Chem.</i> 22: 811-815 (1979).		
	IF	MIKHAILOV, S.N., <i>et al.</i> , "Synthesis and properties of 3'-C-methylnucleosides and their phosphoric esters," <i>Carbohydrate Research</i> , 124:75-96 (1983).		
	IG	MIKHAILOV, S.N., <i>et al.</i> , "Substrate properties of C'-methylnucleoside and C'-methyl-2'-deoxynucleoside 5'-triphosphates in RNA and DNA synthesis reactions catalysed by RNA and DNA polymerases," <i>Nucleosides &amp; Nucleotides</i> , 10(1-3):339-343 (1991).		
	IH	MIKHAILOV, S.N., <i>et al.</i> , "Hydrolysis of 2'- and 3'-C-methyluridine 2',3'-cyclic monophosphates and interconversion and dephosphorylation of the resulting 2'- and 3'-monophosphates: Comparison with the reactions of uridine monophosphates," <i>J. Org. Chem.</i> , 57 (15):4122-4126 (1992).		
	II	NEIDLEIN, R., <i>et al.</i> , "Mild preparation of 1-benzyl-2-oxymethylphosphonic dichlorides: Application to the synthesis of cyclic phosphonic diesters and cyclic monoester amides," <i>Heterocycles</i> 35:1185-1203 (1993).		
	IJ	NUTT, R.F., <i>et al.</i> , "Branched-chain sugar nucleosides. III. 3'-C-methyladenine," <i>J. Org. Chem.</i> , 33:1789-1795 (1968).		
	IK	OIVANEN, M., <i>et al.</i> , "Additional evidence for the exceptional mechanism of the acid-catalyzed hydrolysis of 4-oxypyrimidine nucleosides: Hydrolysis of 1-(1-alkoxyalkyl)uracils, seconucleosides, 3'-C-alkyl nucleosides and nucleoside 3',5'-cyclic monophosphates," <i>J. Chem. Soc. Perkin Trans. 2</i> , 1994:309-314 (1994).		
	IL	ONG, S.P., <i>et al.</i> , "Synthesis of 3'-C-methyladenosine and 3'-C-methyluridine diphosphates and their interaction with the ribonucleoside diphosphate reductase from <i>Corynebacterium nephridii</i> ," <i>Biochemistry</i> , 31(45):11210-11215 (1992).		
✓	IM	Oral Session V, Hepatitis C Virus, Flaviviridae; 16 <sup>th</sup> International Conference on Antiviral Research (April 27, 2003, Savannah, Ga.) p A75-77.		

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LH	JA	PAN-ZHOU, X-R, <i>et al.</i> , "Differential effects of antiretroviral nucleoside analogs on mitochondrial function in HepG2 cells," <i>Antimicrob. Agents Chemother.</i> , 44:496-503 (2000).			
	JB	PIANTADOSI, C., <i>et al.</i> , "Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity," <i>J. Med. Chem.</i> 34:1408-1414 (1991).			
	JC	RICHMAN, D.D., <i>et al.</i> , "The toxicity of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-Related Complex," <i>N. Engl. J. Med.</i> , 317(4):192-197 (1987).			
	JD	ROSENTHAL, A., <i>et al.</i> , "Branched-chain sugar nucleosides. Synthesis of 3'-C-ethyl (and 3'-C-butyl)uridine <i>Carbohydrate Research</i> , 79:235-242 (1980).			
	JE	SAMANO, V., <i>et al.</i> , "Synthesis and radical-induced ring-opening reactions of 2'-deoxyadenosine-2'-spirocyclopropane and its uridine analogue. Mechanistic probe for ribonucleotide reductases," <i>J. Am. Chem. Soc.</i> , 114:4007-4008 (1992).			
	JF	SAMANO, V., <i>et al.</i> , "Nucleic acid related compounds. 77. 2',3'-Didehydro-2',3'-dideoxy-2'(and 3')-methyl nucleosides via [3,3]-sigmatropic rearrangements of 2'(and 3')-methylene-3'(and 2')-O-thiocarbonyl derivatives and radical reduction of a 2'-chloro-3'-methylene analogue," <i>Can. J. Chem.</i> , 71:186-191 (1993).			
	JG	SCHMIT, C., <i>et al.</i> , "The effects of 2'- and 3'-alkyl substituents on oligonucleotide hybridization and stability," <i>Biorganic &amp; Medicinal Chemistry Letters</i> , 4(16):1969-1974 (1994).			
	JH	SERAFINOWSKI, P.J., <i>et al.</i> , "New method for the preparation of some 2'- and 3'-trifluoromethyl-2',3'-dideoxyuridine derivatives," <i>Tetrahedron</i> (Elsevier Science Publishers), 56(2):333-339 (1999).			
	JI	SHARMA, P.K., <i>et al.</i> , "Synthesis of 3'-trifluoromethyl nucleosides as potential antiviral agents," <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 19(4):757-774 (2000).			
	JJ	SOMMADOSSI J-P, <i>et al.</i> , "Toxicity of 3'-azido-3'-deoxythymidine and 9-(1,3-dihydroxy-2-propoxymethyl)guanine for normal human hematopoietic progenitor cells in vitro" <i>Antimicrobial Agents and Chemotherapy</i> , 31:452-454 (1987).			
	JK	SOMMADOSSI J-P, <i>et al.</i> , "Comparison of cytotoxicity of the (-)- and (+)-enantiomer of 2',3'-dideoxy-3'-thiacytidine in normal human bone marrow progenitor cells" <i>Biochemical Pharmacology</i> , 44:1921-1925 (1992).			
	JL	STARRETT, J.E.Jr., <i>et al.</i> , "Synthesis, oral bioavailability determination, and <i>in vitro</i> evaluation of prodrugs of the antiviral agents 9-(2-(phosphonomethoxy)ethyl)adenine (PMEA)," <i>J. Med. Chem.</i> 37: 1857-1864 (1994).			
✓	JM	TRITSCH, D., <i>et al.</i> , "3'-β-ethynyl and 2'-deoxy-3'-β-ethynyl adenosines: First 3'-β-branched adenosines substrates of adenosine deaminase," <i>Bioorganic &amp; Medicinal Chemistry Letters</i> , 10:139-141 (2000).			

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				First Named Inventor	Sommadossi <i>et al.</i>
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LH	KA	TUNITSKAYA, V.L., <i>et al.</i> , "Substrate properties of C'-methyl UTP derivatives in T7 RNA polymerase reactions. Evidence for N-type NTP conformation," <i>FEBS Letters</i> , 400:263-266 (1997).			
	KB	USUI, H., <i>et al.</i> , "Synthesis of 2'-deoxy-8,2'-ethanoadenosine and 3'-deoxy-8,3'-ethanoadenosine (Nucleosides and Nucleotides. LXIV)," <i>Chem. Pharm. Bull.</i> , 34(1):15-23 (1986).			
	KC	VASSILEV, V.B., <i>et al.</i> , "Bovine diarrhea virus induced apoptosis correlates with increased intracellular viral RNA accumulation," <i>Virus Res.</i> , 69(2), 95-107 (2000).			
	KD	WALCZAK, K., <i>et al.</i> , "Synthesis of 1-(3-alkyl-2,3-dideoxy-D-pentofuranosyl)uracils with potential anti-HIV activity," <i>Acta Chemica Scand.</i> , 45:930-934 (1991).			
	KE	WALTON, E., <i>et al.</i> , "Branched-chain sugar nucleosides. V. Synthesis and antiviral properties of several branched-chain sugar nucleotides," <i>J. Med. Chem.</i> , 12:306-309 (1969).			
	KF	WEINBERG, R.S., <i>et al.</i> , "Effect of antiviral drugs and hematopoietic growth factors on <i>in vitro</i> erythropoiesis," <i>Mt. Sinai J. Med.</i> 1998;65(1):5-13.			
	KG	WOLFE, M.S., <i>et al.</i> , "A concise synthesis of 2'-C-methylribonucleosides," <i>Tetrahedron Letters</i> , 36(42):7611-7614 (1995).			
	KH	WU, J.-C., <i>et al.</i> , "A new stereospecific synthesis of [3.1.0] bicyclic cyclopropano analog of 2',3'-dideoxyuridine," <i>Tetrahedron</i> , 46(7):2587-2592 (1990).			
	KI	YARCHOAN, R., <i>et al.</i> , "Long-term toxicity / activity profile of 2',3'-dideoxyinosine in AIDS or AIDS-related complex," <i>The Lancet</i> , 336(8714):526-529 (1990).			
	KJ	YOSHIDA Y, <i>et al.</i> , "Reversal of azidothymidine-induced bone marrow suppression by 2',3'-dideoxythymidine as studied by hemopoietic clonal culture," <i>AIDS Res. Hum. Retroviruses</i> , 6(7):929-932 (1990).			
✓	KK	ZON, G., "Cyclophosphamide Analogues," Chapter 4 in <i>Progress in Medicinal Chemistry</i> , Vol. 19, G.P. Ellis and G.B. West, Eds., pp. 205-246 (1982).			

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